

PSAMP CONTACTS AND PUBLICATIONS

PSAMP monitoring results are integrated, summarized, and presented in the [Puget Sound Update](http://www.psp.wa.gov/puget_sound/update.htm) (www.psp.wa.gov/puget_sound/update.htm). Findings are also presented every two years at the [Puget Sound/Georgia Basin Research Conference](http://www.engr.washington.edu/epp/psgb/) (www.engr.washington.edu/epp/psgb/).

PSAMP scientists regularly provide additional, detailed information on their monitoring efforts and results. Contacts and links to these scientists and their work are listed below:

Marine Waters and Sediments

- ▶ WA Department of Ecology www.ecy.wa.gov/programs/eap/psamp/
www.ecy.wa.gov/programs/eap/psamp/mar_wat/mwm_intr.html
- ▶ King County Dept Natural Resources www.dnr.metrokc.gov/wlr/waterres/marine/

Freshwater

- ▶ WA Department of Ecology www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html

Birds and Fish Abundance

- ▶ WA Department of Fish and Wildlife wdfw.wa.gov/wildlife.htm
wdfw.wa.gov/science/
wdfw.wa.gov/mapping/psamp/

Toxics in Fish and Wildlife

- ▶ WA Department of Fish and Wildlife wdfw.wa.gov/fish/psamp/
- ▶ NOAA Fisheries www.nwfsc.noaa.gov/index.cfm
- ▶ US Fish and Wildlife Service westernwashington.fws.gov/contaminants/
- ▶ US Environmental Protection Agency www.epa.gov/region10

Shellfish

- ▶ WA Department of Health www.doh.wa.gov/ehp/sf/sfpubs.htm#GrowingAreasPubs

Nearshore Habitat

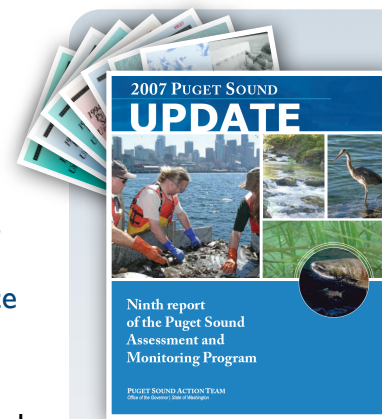
- ▶ WA Department of Natural Resources www.dnr.wa.gov/htdocs/aqr/nshr/
- ▶ US Geological Survey walrus.wr.usgs.gov/research/projects/puget_coastalhab.html

Hood Canal

- ▶ Hood Canal Dissolved Oxygen Program www.hoodcanal.washington.edu/
University of Washington

Puget Sound Regional Synthesis Model

- ▶ University of Washington www.prism.washington.edu/



PSAMP
working towards a...



fishable...



swimmable...



diggable...

...Puget Sound.



WHAT IS PSAMP?

The Puget Sound Assessment and Monitoring Program has provided essential science for conservation, recovery, and management of the Puget Sound Ecosystem since 1989. PSAMP is an extensive, unique network of regional scientists who monitor key indicators of water and sediment quality, nearshore habitat, and the health or abundance of fish, seabirds, shellfish, and marine mammals.

WHY MONITOR?

Monitoring tells the story of the ecosystem's health, and PSAMP's long-term studies have shown that Puget Sound's health is declining. Sediment and water quality are poor in many locations. Nearshore habitats have been destroyed, and populations of many fish, shellfish, marine birds and mammals are in decline or contaminated. These conditions threaten our economy, values, and quality of life.

As regional managers try to balance human population growth with the needs of a healthy ecosystem, PSAMP's assessment and monitoring studies can: 1) identify ecosystem components that may become threatened, 2) identify effective recovery actions, and 3) track the progress of recovery.

PSAMP AND THE PUGET SOUND PARTNERSHIP

The Partnership's mission is to restore Puget Sound's health by 2020. Its Action Agenda targets a diverse set of goals, including a healthy human population, high quality of life, healthy populations of native species, protected and restored habitats, and sufficient water quantity and quality to support human uses and needs of the species in the ecosystem. PSAMP's long-term monitoring provides a framework for setting Action Agenda objectives, and for understanding how effective these Actions are.

WHAT DOES PSAMP DO?

PSAMP's diverse projects fulfill key management needs, by providing

- ▶ A long-term record of natural and human-caused changes in the condition of the Sound and its resources.
- ▶ Early warning about ecosystem components needing immediate attention.
- ▶ Guidance towards protecting and restoring the vitality and proper functioning of the ecosystem.
- ▶ Evaluation of success of management actions on a regional and Puget Sound-wide scale.



Charlie Eaton

Don Rothaus

PSAMP Monitoring Highlights

Healthy Sound Supporting Healthy People

Protecting Human Health

Fecal bacteria and biotoxin monitoring protects shellfish consumers, guides pollution controls, and supports watershed planning. A third of growing areas are still affected by fecal pollution.

Freshwater Quality

Contamination of rivers by fecal bacteria has declined over the past 20 years.

Habitat Quality & Quantity

1/3 of Puget Sound's shoreline has been armored. Eelgrass has declined in Hood Canal and the San Juan Islands.

Clean Marine Waters

Toxic Contaminants

Chinook salmon from Puget Sound are 3 times more contaminated with PCBs than 6 other West Coast populations.

Long-term Ecosystem Change

Some species' abundance have declined significantly: western grebes 80-95% from 1978 to 1999, and scoters 69-70% from 1978 to 2005.

Protected & Restored Habitats

Marine Water Quality

Many of Puget Sound's embayments are vulnerable to low oxygen levels. Hood Canal and South Puget Sound are areas of special concern.

Thriving Web of Life

Sediment Quality

1/3 of sediments have lowered quality. The most highly contaminated sediments occur in the most productive habitats.

Fish Health

Prevalence of cancer in bottom-dwelling fish has declined in embayments where contaminated sediments have been cleaned up.

Abundance of Key Species

Abundance of lingcod has increased as a result of adaptive management.

Rockfish populations are in serious decline.

Early Warning

Uncontrolled increases in nutrient loads may overstimulate phytoplankton growth, and cause irreversible changes to the ecosystem.

Dr. Jeff Cordell

Kathy Newell